



AN EVALUATION ON THE INFLUENCE OF AUTOMATED CASH MANAGEMENT ON FISCAL PERFORMANCE OF COUNTY GOVERNMENTS IN KENYA

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Abstract: *The research paper investigates the impact of Automated Cash Management (ACM) on the fiscal performance of county governments in Kenya, within the context of the Integrated Financial Management Information System (IFMIS). The study aims to evaluate the efficacy of automated cash management in improving transparency, accountability, revenue collection, expenditure management, and overall financial governance in county governments. Despite efforts to modernize financial systems, challenges persist in managing financial resources efficiently at the county level. The research objective is to systematically evaluate the influence of ACM on the fiscal performance of county governments, hypothesizing a significant impact on fiscal outcomes. Using a descriptive survey approach involving chief finance officers from 47 county governments in Kenya, the study employs both qualitative and quantitative data analysis methods. Descriptive analysis of survey responses reveals varying levels of agreement regarding the impact of ACM on financial management practices within county governments. Regression analysis confirms a significant positive relationship between ACM and fiscal performance, leading to the rejection of the null hypothesis. The findings suggest positive perceptions regarding the effectiveness of automated systems in improving financial processes and performance. The study underscores the need for county governments to prioritize the adoption and effective utilization of ACM systems to improve financial accountability, transparency, and overall fiscal health. In conclusion, the research provides valuable insights into the role of automated cash management in enhancing the fiscal performance of county governments in Kenya, highlighting its potential to drive efficiency and accountability in financial management practices.*

Keywords: *IFMIS, automated cash management, fiscal performance, county governments*

Introduction

The public service in any country of the world represents governments machinery which aids in formulation and implementation of public policies. Public service function is therefore achieved by converting government policies and programs into tangible goods and services for the consumption of the citizenry (Shittu, 2020). According to Riogi and Ombui (2020), policy framework strategy seeks to harness and mainstream public service delivery improvement across the public service to deliver effective, equitable and quality services for the achievement of sustainable development. According to Ong'era and Musili (2019), the public sector plays a crucial role in attaining sustainable development hence it's important that it has adequate capacity in regard to policy making to make sure that services are delivered in the most effective, efficient and accountable way. Development of policy frameworks is important as this will re-engineer public services through technology adoption, application and use to enable greater efficiency, effectiveness, and promote creativity and innovation

in service delivery. Quak (2020), argues that public finance management plays an important role in service delivery because it sets the framework for how public funds are used to finance the provision of public services.

In order to ensure effective and efficient provision of public services public financial management is expected to play a crucial role in the implementation of national and sectoral policies (Ong'era & Musili, 2019). Public financial management encompasses collection of revenues, allocation of funds through the budgetary process and utilization of public revenues for instance through procurement of goods and services, internal and external auditing of public spending and performance of state institutions (Macharia & Dominic, 2019).

According to Muwema and Phiri (2020), progressive governments all over the world strive for efficient public finance management in order to properly manage resources and minimize opportunity costs connected with public procurement. Good financial management has an advantage of reducing government expenditure by ensuring that the services needed by the citizens especially the poor are actually delivered, maintained and worked properly, hence ensuring accountability to citizens for the use of public resources (Chene, 2009). The public sector is always in the spotlight to provide essential services for instance, health, water, and sanitation and there is always a general outcry when the services are not timely or adequately provided (Mwansa & Qutieshat, 2022). Omboti (2019) noted that there are major failings in the provision of core public services around the world with various state agencies still facing a number of difficulties in offering services. Further, Omboti (2019) asserts that some of the key elements that contribute to poor delivery of services include underpaid and uninspired government workers, scarcity of funds, inadequate training, and low responsibility levels. Lopes, Soares, Nielsen and Tavares (2017) noted that poor service delivery is often characterized by unresponsiveness to the citizen's needs, delay in service delivery and inability to access diverse services provided by government agencies.

Automated Cash Management module

Fwamba (2021) describes cash management as the process of forecasting, collecting, disbursing, investing, and planning for cash a company requires in order to have seamless operations. According to Wainaina (2014) IFMIS cash management module automates all the processes of cash management system till all the payments are made. The module can vary from the general ledger accounting applications to a comprehension system entailing budgeting, accounts receivables or payables, cash management, commitment control, debt, assets and liability management among other applications.

According to Diamond and Khemani (2005), the cash management module should aid in keeping an accurate picture of the government's liquidity status and cash requirements. According to Dorotinsky (2003), IFMIS can improve the confidence and reliability of the budget as well as accounting and reporting through more thorough and transparent data collection. Due to growing demands for greater transparency and accountability in the management of public funds, the Integrated Financial Management Information System (IFMIS) is designed to further establish frameworks for financial data recording, tracking, and data management (Macharia and Gaba, 2019).

Automated cash management systems have been shown to have a positive impact on the financial performance of government institutions. Studies in Kenya have highlighted the influence of electronic budgeting and automated cash management on enhancing the quality of financial reporting within government entities (Tum, 2023). Furthermore, the efficiency of cash management has been linked to improved financial performance in various sectors, such as private hospitals and agricultural firms, indicating the broader implications of effective cash management practices (Wanjuki, 2021; Mogoi & Osoro, 2022).

In the context of county governments in Kenya, the transition towards fiscal decentralization has been a significant factor affecting their performance. Research has explored the effects of fiscal decentralization on the performance of county governments during the transition from a centralized to a decentralized governance system, emphasizing the importance of understanding the impact of such changes on financial outcomes (Mbau et al., 2019). Additionally, studies have delved into the influence of county cash management on household effects, shedding light on the broader implications of financial decisions made at the county level (Munyua et al., 2020).

Overall, the evaluation of automated cash management on the fiscal performance of county governments in Kenya requires a comprehensive understanding of the interplay between financial management practices, decentralization efforts, strategic decision-making, and their collective impact on government performance. By synthesizing insights from studies on cash management, fiscal decentralization and service quality within county governments, a holistic assessment can be made to inform policies and practices aimed at improving fiscal outcomes at the county level.

Problem statement

According to a study by Njagi, Ndiku, and Mwai, (2019), IFMIS has greatly enhanced delivery of services at the National Treasury. The most prominent areas of improvement include procurement of goods, efficiency in budgeting process and payments which were made electronically, hence improving accountability and transparency. The study came to the conclusion that there were numerous complaints about delays in payments through the system, particularly in the County Governments.

In Kenya, county governments play a pivotal role in local governance and service delivery, yet the efficient management of financial resources remains a persistent challenge. Amidst efforts to modernize financial systems, the adoption of automated cash management solutions has garnered attention as a potential means to enhance fiscal performance. However, the extent to which such automation influences the fiscal performance of county governments remains inadequately understood. Therefore, this study aims to systematically evaluate the impact of automated cash management on the fiscal performance of county governments in Kenya, with a focus on assessing its efficacy in improving transparency, accountability, revenue collection, expenditure management, and overall financial governance.

Research Objective

The general objective of this study was to establish the influence of Integrated Financial Management Information System (IFMIS) modules on Fiscal Performance of County governments in Kenya with a specific objective to evaluate the influence of automated cash management on fiscal performance of county governments.

From the research specific objective, a research hypothesis was formulated;

H01: Automated cash management has no significant influence on Fiscal Performance of County governments in Kenya

Empirical Literature

Kingori and Njogu (2022) study was on the effect of public finance management automation on financial performance of Kiambu county government in Kenya. Examining the effects of automated revenue collection, cash management, financial reporting, and internal control systems on the county government's financial

performance was one of the stated goals. The survey had an 85 percent response rate from the study's 20 target senior Kiambu county officials. The study's findings showed that internal control and cash management automation significantly improved financial performance. Automation of financial reporting and revenue collection, however, had a considerable but unfavorable impact on financial performance. The study recommends that the county government should embrace automation of both cash management and internal controls as both are positively linked to performance. Further, the study recommends to the county leadership to investigate the reasons underlying the negative influence of revenue collection and financial reporting automation.

Mugambi, Gichovi, and Kambura (2019) study was on effect of cash management automation on financial management in Meru County government. Descriptive survey research design study was used. The population for this study composed of the Meru County government staff. The sample size was 70 respondents in total, questionnaires were used as the research tool whose validity and reliability were measured accordingly. Mean and regression analysis was computed when analyzing data. The study results established that Cash management automation enables county leadership to understand the true cost of service delivered by the county per activity; that Through Cash management automation, the county finance department is able to reconcile transactions data in real-time. The study concludes that successful cash management automation in any institution is essential due to difficulties that come with accessing credits whenever an organization is facing liquidity constraints.

Chado (2015) investigated how an integrated financial management information system affected Kenya's public sector's financial management. The study found that methods for managing organizational accountability, budgeting and cash flow, internal controls, and financial reporting had a favorable and significant influence on financial management in the public sectors.

Ndzovu and Ng'ang'a (2019) examined the effects of integrated financial management information system on financial performance of county government of Kwale, Kenya. The study discovered that computerized budgeting, automated cash management, electronic procurement, and automated financial reporting had a significant and positive impact on the county's financial performance. According to the report, the county's financial performance would improve if the four IFMIS components were used more effectively.

While existing literature has explored the impact of automated cash management on financial performance in various sectors and government institutions, there is a notable research gap in understanding the specific mechanisms through which automated cash management influences the fiscal performance of county governments in Kenya. While studies have highlighted the importance of electronic budgeting and automated cash management in enhancing financial reporting quality in government institutions, there is a lack of in-depth analysis on how these systems directly impact the fiscal outcomes of county governments in Kenya. Additionally, while research has examined the effects of fiscal decentralization on the performance of county governments during the transition to a decentralized governance system, there is a need for studies that specifically focus on the role of automated cash management within this context.

Research design

This research used a descriptive survey approach. The unit of study comprised of forty-seven (47) county governments of Kenya since they are fully using the IFMIS modules to conduct daily operations. The respondents were the chief finance officers in each respective county in Kenya.

Data analysis is the process of arranging and organizing raw data in order to extract usable information from it (Saunders et al., 2009). Before being coded for analysis, the primary data collected from the survey was examined for omissions, readability, and consistency.

Methods for both qualitative and quantitative data analysis were used in this study. With the use of the Statistical Package for Social Sciences (SPSS) program, descriptive and inferential statistics were used to examine quantitative data. The study used arithmetic mean and standard deviation in descriptive statistics, while Pearson's correlation coefficient and multiple regression were used in inferential statistics.

The researcher applied Multiple regressions model to establish the relationship between dependent and independent variable. The analyzed data was presented through tables and graphs. The following multiple regression model was used with an aim of drawing inference into the influence of independent variable on the dependent variable (Fiscal Performance);

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \tag{1}$$

Where;

Y is the dependent variable (Fiscal Performance)

β_0 is the regression constant or intercept

β_1 are the Beta coefficients of independent variables $X_1 =$ Automated Cash Management

ε = error term

Descriptive analysis

In order to gather data on the independent variable, Automated Cash Management, respondents were presented with a series of statements and asked to provide feedback using a Likert scale ranging from one (1) to five (5). This scale corresponded to the following: 1 for strongly disagree, 2 for disagree, 3 for neither agree nor disagree, 4 for agree, and 5 for strongly agree.

According to Table 1, Statement 1. Automated Cash Management has enhanced timely recording of accounts transactions in the county government: - The responses indicate that 42.1% strongly disagree, 13.9% disagree, 35.5% neither agree nor disagree, 24.7% agree, and 10.8% strongly agree with the statement. The mean score for this statement is 3.02 with a standard deviation of 1.195. This suggests that there is a moderate level of agreement among respondents that automated cash management has improved the timely recording of accounts transactions in the county government.

Statement 2. Automated Cash Management has improved cash management system and financial reporting in the county government: - The responses show that 13.5% strongly disagree, 8.8% disagree, 10.8% neither agree nor disagree, 43.8% agree, and 24.1% strongly agree with the statement. The mean score for this statement is 3.54 with a standard deviation of 1.306. This indicates a higher level of agreement compared to the previous statement, suggesting that automated cash management has had a more significant impact on improving the cash management system and financial reporting in the county government.

Statement 3. The county has linked Automated Cash Management to IFMIS modules used in other units to enhance revenue collection: - The responses reveal that 5.2% strongly disagree, 23.9% disagree, 19.1% neither agree nor disagree, 20.7% agree, and 31.1% strongly agree with the statement. The mean score for this statement is 3.49 with a standard deviation of 1.291. This indicates a relatively high level of agreement that linking automated cash management to IFMIS modules in other units has enhanced revenue collection in the county government.

Statement 4. Linking of the Automated Cash Management module with other units' modules can/has improved oversight of accounts transactions in the county government: - The responses show that 4.8% strongly disagree, 42.9% disagree, 7.6% neither agree nor disagree, 47.0% agree, and 24.7% strongly agree with the statement. The mean score for this statement is 3.71 with a standard deviation of 1.35. This suggests a strong agreement among respondents that linking automated cash management modules with other units has improved oversight of accounts transactions in the county government.

Statement 5. IFMIS has reduced unit's itemized budget misallocations hence improved financial performance in the county government hence less audit queries: - The responses indicate that 4.8% strongly disagree, 29.9% disagree, 5.2% neither agree nor disagree, 41.8% agree, and 18.3% strongly agree with the statement. The mean score for this statement is 3.39 with a standard deviation of 1.223. This suggests a moderate level of agreement that IFMIS has contributed to reducing budget misallocations and improving financial performance in the county government.

Statement 6. IFMIS has reduced fraudulent transactions in accounts sector and has improved quality of the accounting system in the county government: - The responses show that 8.4% strongly disagree, 2.0% disagree, 13.9% neither agree nor disagree, 55.4% agree, and 20.3% strongly agree with the statement. The mean score for this statement is 3.77 with a standard deviation of 1.062. This indicates a high level of agreement that IFMIS has been effective in reducing fraudulent transactions and enhancing the quality of the accounting system in the county government.

Overall, the responses suggest varying levels of agreement regarding the impact of automated cash management and IFMIS on financial management practices within the county government in Kenya. The data provides insights into the perceived effectiveness of these systems in improving financial processes, oversight, and performance within the government entity.

The findings agreed with Chuma (2017) that automated cash management systems are accurate, timely, complete and consistent in cash management and also, Ndzovu and Ng'ang'a (2019) computerized budgeting, automated cash management, electronic procurement, and automated financial reporting had a significant and positive impact on the county's financial performance.

Table 1: Automated Cash Management frequencies

Automated Cash Management	Strongly Disagree	Disagree	Neither Agree nor Disagree	Strongly Agree	Mean	Std. Dev.	
Automated Cash Management has enhanced timely recording of accounts transactions in the county government.	42.1	13.9	35.5	24.7	10.8	3.02	1.195
Automated Cash Management has improved cash management system and financial reporting in the county government.	13.5	8.8	10.8	43.8	24.1	3.54	1.306
The county has linked Automated Cash Management to IFMIS modules used in other units to enhance revenue collection.	5.2	23.9	19.1	20.7	31.1	3.49	1.291
Linking of the Automated Cash Management module with other units' modules can/has improved oversight of accounts transactions in the county Government	4.8	42.9	7.6	47.0	24.7	3.71	1.35
IFMIS has reduced unit's itemized budget misallocations hence improved financial performance in the county government hence less audit queries.	4.8	29.9	5.2	41.8	18.3	3.39	1.223
IFMIS has reduced fraudulent transactions in accounts sector and has improved quality of the accounting system in the county government.	8.4	2.0	13.9	55.4	20.3	3.77	1.062
The system has improved on the managerial decision making in the accounts and linkage with other units in the county government for better service delivery in the accounts department.	2.8	4.8	12.7	33.5	46.2	4.16	1.006
Automated Cash Management has improved the integrity of accounts in terms of accountability, transparency, confidentiality and accuracy of accounts transactions in the County	10.8	10.4	21.9	35.5	21.5	3.47	1.240

Fiscal performance of the county government

Table 2 provided presents data on the evaluation of the influence of Integrated Financial Management Information System (IFMIS) modules on the fiscal performance of a county government in Kenya. The responses are categorized based on levels of agreement, ranging from "Strongly Disagree" to "Strongly Agree," with additional categories for "Neither Agree nor Disagree" and "Agree." The mean scores and standard deviations are also provided for each statement.

Statement 1. IFMIS modules have promoted transparency, accountability, and efficiency of government collections hence improved county financial performance: - The responses indicate a high level of agreement, with 64.9% agreeing and 24.7% strongly agreeing. The mean score of 4.14 suggests a significant consensus that IFMIS modules have positively impacted transparency, accountability, and efficiency in government collections, leading to improved county financial performance.

Statement 2. Through the system, the county government's revenue account reconciliation with the county government's exchequer balances has been easily done hence improved county financial performance: - The responses show a moderate level of agreement, with 57.0% agreeing and 20.7% strongly agreeing. The mean score of 3.87 indicates a general agreement that IFMIS has facilitated revenue account reconciliation, contributing to improved county financial performance.

Statement 3. IFMIS has enhanced the attainment of own source revenue targets in the county: - The responses demonstrate a moderate level of agreement, with 49.4% agreeing and 13.9% strongly agreeing. The mean score of 3.60 suggests a general consensus that IFMIS has played a role in achieving own source revenue targets in the county.

Statement 4. IFMIS has streamlined all the county government's financial processes on allocations without unauthorized budget shifting in various units: - The responses indicate a high level of agreement, with 40.6% agreeing and 44.2% strongly agreeing. The mean score of 4.24 suggests a strong consensus that IFMIS has effectively streamlined financial processes and prevented unauthorized budget shifting within various units of the county government.

Statement 5. IFMIS modules have improved on the financial management of allocations and public expenditure management in the county government: - The responses show a high level of agreement, with 47.0% agreeing and 27.5% strongly agreeing. The mean score of 3.96 indicates a significant consensus that IFMIS modules have enhanced financial management of allocations and public expenditure management within the county government.

Overall, the data suggests that IFMIS modules have been positively perceived in improving various aspects of financial management and performance within the county government. The high levels of agreement in most statements indicate that IFMIS has played a significant role in enhancing transparency, efficiency, revenue targets attainment, financial processes, and expenditure management, ultimately contributing to improved fiscal performance.

Table 2: Automated Cash Management frequencies

Automated Cash Management	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean	Std. Dev.
Automated Cash Management has enhanced timely recording of accounts transactions in the county government.	42.1	13.9	35.5	24.7	10.8	3.02	1.195
Automated Cash Management has improved cash management system and financial reporting in the county government.	13.5	8.8	10.8	43.8	24.1	3.54	1.306
The county has linked Automated Cash Management to IFMIS modules used in other units to enhance revenue collection.	5.2	23.9	19.1	20.7	31.1	3.49	1.291
Linking of the Automated Cash Management module with other units' modules can/has improved oversight of accounts transactions in the county Government	4.8	42.9	7.6	47.0	24.7	3.71	1.35
IFMIS has reduced unit's itemized budget misallocations hence improved financial performance in the county government hence less audit queries.	4.8	29.9	5.2	41.8	18.3	3.39	1.223
IFMIS has reduced fraudulent transactions in accounts sector and has improved quality of the accounting system in the county government.	8.4	2.0	13.9	55.4	20.3	3.77	1.062
The system has improved on the managerial decision making in the accounts and linkage with other units in the county government for better service delivery in the accounts department.	2.8	4.8	12.7	33.5	46.2	4.16	1.006
Automated Cash Management has improved the integrity of accounts in terms of accountability, transparency, confidentiality and accuracy of accounts transactions in the County	10.8	10.4	21.9	35.5	21.5	3.47	1.240

Regression analysis for construct Automated Cash Management

From table 3 (ii), the regression model of X1 and Y was significant with $F(1,43) = 346.470$, $p\text{-value} < 0.001$, inferring that Automated Cash Management was a valid predictor in the model. The Coefficient of determination R^2 of 0.582 showed that 58.2% of Fiscal performance of the county government is explained by Automated Cash Management. The remaining percentage of Fiscal performance of the county government can be explained by other factors not included in the model. The R of 0.763 from table 3 (i) shows there is a strong positive correlation between Automated Cash Management and Fiscal performance of the county government in Kenya.

From hypothesis of the study, H_{01} : Automated Cash Management has no significant statistical effect on the Fiscal performance of the county government in Kenya, the study findings revealed that there was positive significant relationship between Automated Cash Management and Fiscal performance of the county government in Kenya.

The results were fitted in the Model $Y = \beta_0 + \beta_1 X_1 + e$

The study therefore rejected the null hypothesis (H_{01} : Automated Cash Management has no significant statistical effect on the Fiscal performance of the county government in Kenya) and concluded that Automated Cash Management (X_1) significantly influenced Fiscal performance of the county government (Y).

The Model equation therefore became $Y = -5.349E-005 + 0.510 X_1$ (2)

Where,

Y is Fiscal performance of the county government X_1 is Automated Cash Management

The beta coefficient value for Automated Cash Management (0.510) meant that for every one unit increase in the dimension of Automated Cash Management in county government, it leads to 0.510 increase in Fiscal performance of the county government as shown in table 3 (iii).

Table 3: Regression analysis for construct Automated Cash Management

i) Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Squ are Change	F Change	df1	df2	Sig. Change
1	.763a	.582	.580	.38296	.582	346.470	1	43	.000
a. Predictors: (Constant), Automated Cash Management									
ii) ANOVA^a									
Model		Sum of Squares	df	Mean Square	F	Sig.			
Regression		50.811	1	50.811	346.470	.000b			
1	Residual	36.517	43	.39					
Total		87.328	44						

Dependent Variable: Fiscal performance of the county government Predictors: (Constant), Automated Cash Management

iii) Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	-5.349E-005	.024		-.002	.998
1	Automated Cash Management	.510	.027	.763	18.614	.000

a. Dependent Variable: Fiscal performance of the county government

Therefore, the null hypothesis H01 Automated Cash Management has no significant statistical effect on the Fiscal performance of the county government in Kenya is rejected.

Summary and conclusion

The research endeavor set out to investigate the influence of Automated Cash Management on the Fiscal performance of the county governments within Kenya. Automated Cash Management involves the use of digital tools and systems to efficiently manage cash flows, monitor expenditures, and optimize financial resources. The study's findings provided compelling evidence of a robust and affirmative relationship between the implementation of Automated Cash Management systems and the Fiscal performance of the county governments in Kenya. This implies that county governments that have effectively adopted and integrated such automated systems have witnessed significant improvements in their financial metrics and overall fiscal health.

The positive correlation between Automated Cash Management and Fiscal Performance underscores the pivotal role of efficient financial management practices in bolstering the financial stability and sustainability of county governments in Kenya. These findings emphasize that prudent cash management, facilitated by automation, can lead to reduced operational costs, enhanced revenue collection, and improved financial accountability. By employing automated tools to optimize cash flows and manage financial resources more effectively, county governments can not only improve their financial performance but also ensure that public funds are utilized efficiently and transparently. This research outcome carries significant implications for county government administrators and policymakers, encouraging them to prioritize the adoption and proper utilization of Automated Cash Management systems to enhance their financial performance and contribute to the overall economic well-being of their regions.

The study's conclusion underscores the significant impact of Automated Cash Management on the Fiscal performance of the county governments. Automated Cash Management involves the utilization of digital tools and systems to efficiently manage cash flows, monitor expenditures, and optimize financial resources. The research findings suggest that county governments that implement effective Automated Cash Management strategies tend to experience tangible improvements in their financial performance indicators. This implies that streamlined cash management processes can lead to reduced operational costs, improved revenue collection, better liquidity management, and enhanced overall fiscal health for county governments.

Consequently, the study's conclusion carries a clear directive for county governments: they should prioritize the development and implementation of clear and robust Automated Cash Management strategies. These

strategies should encompass the adoption of advanced technology and financial tools that facilitate real-time monitoring and management of cash flows, as well as data-driven decision-making. Moreover, county governments should also focus on training and capacity building for their finance teams to ensure the effective utilization of these automated systems. By doing so, county governments can harness the benefits of Automated Cash Management to optimize their financial performance, strengthen financial stability, and ensure prudent financial resource utilization. In essence, the study underscores that a well-defined and effective Automated Cash Management strategy is pivotal for county governments aiming to enhance their financial performance and financial sustainability.

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